REMARKS/ARGUMENTS

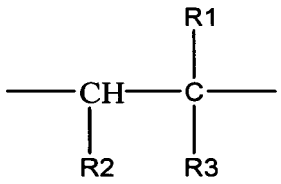
Favorable reconsideration is respectfully requested.

Applicants would like to thank Examiner Mesh and Supervisory Examiner Seidleck for the helpful and courteous discussion held with their representative on September 18, 2006. Regarding the double patenting rejection over the claims of US 7,001,967 and the rejection over JP 05-117334 each in view of Arakawa et al, it was noted that there is no disclosure or suggestion to combine components a) and b) as claimed to obtain an optical film having a negative birefringence. In addition, the superior properties shown in the Examples of the specification were noted.

Regarding LeKhac, it was noted that there is no disclosure of a film having a negative birefringence as claimed.

The present invention as set forth in **Claim 3** relates to an **optical film exhibiting negative birefringence**, which comprises:

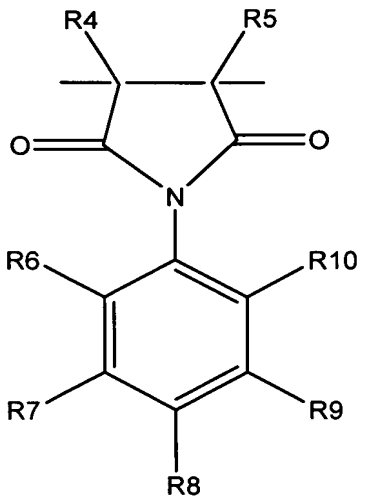
(a) 30-95% by weight of a copolymer comprising an α-olefin residual group unit represented by the following formula (i):



(i)

wherein R1, R2 and R3 each independently represent hydrogen or an alkyl group having 1-6 carbon atoms, and

an N-phenyl-substituted maleimide residual group unit represented by the following formula (ii):



(ii)

wherein R4 and R5 each independently represent hydrogen, or a linear or branched alkyl group having 1-8 carbon atoms; and R6, R7, R8, R9 and R10 each independently represent hydrogen, a halogen atom, a carboxylic acid, a carboxylic acid ester, a hydroxyl group, a cyano group, a nitro group, or a linear or branched alkyl group having 1-8 carbon atoms, and having a weight average molecular weight, as reduced into standard polystyrene, of 5×10^3 to 5×10^6; and

(b) 70-5% by weight of at least one acrylonitrile-styrene based copolymer selected from an acrylonitrile-styrene copolymer and an acrylonitrile-butadiene-styrene copolymer, a weight ratio of an acrylonitrile residual group unit to a styrene residual group unit being 20/80 to 35/65, and having a weight average molecular weight, as reduced into standard polystyrene, of 5×10^3 to 5×10^6.

The double patenting rejection of Claims 3-6 and 10 over claims 1-4 of US 7,001,967, in view of paragraphs [004 and 005] of the specification, and in further view of Arakawa et al is traversed.

The claims of US 7,001,967 fail to disclose or suggest the use of a combination of components a) and b) as claimed. Arakawa et al disclose only the use of styrene/acrylonitrile copolymer and fail to disclose the use of component a).

However, the claimed combination of components a) and b) results in films that do not exhibit fine cracks and can therefore be used as retardation films. See Examples 1-5 at pages 20 -25 of the specification.

In contrast, Comparative Examples 1-3 use **only component a)** (N-phenylmaleimide-isobutene copolymer and N-(2-methylphenyl)maleimide-isobutene copolymer, respectively in Comparative Examples 1 and 2) **or only component b)** (acrylonitrile-styrene copolymer in Comparative Example 3). **The resulting film have cracks and are brittle or have inferior heat resistance.** See pages 25-28 of the specification. These superior properties are not disclosed or suggested by the claims of US 7,001,967 and Arakawa et al, alone or in combination.

Further, paragraphs [004 and 005] of the specification relate to related art and describe the drawbacks of using PMMA and PS which have **insufficient heat resistance and are brittle** or of APO which exhibits **positive** birefiringence. There is no disclosure or suggestion of the combination of components a) and b) as claimed to produce an optical film having negative birefringence.

Thus, the double patenting rejection of Claims 3-6 and 10 over claims 1-4 of US 7,001,967, in view of paragraphs [004 and 005] of the specification, and in further view of Arakawa et al should be withdrawn.

The rejection of Claims 3 and 4 under 35 U.S.C. § 102(b) as anticipated by LeKhac is traversed.

LeKhac fails to disclose or suggest an optical film exhibiting negative birefringence as claimed comprising components a) and b). In addition, LeKhac fails to disclose or suggest the superior properties obtained with the claimed film.

In the present invention, a film obtained from the resin composition is molded in order to obtain the claimed negative birefringence. See for example, the description at page 15, 1st full paragraphh of the specification:

> "The film obtained by the molding method such as melt extrusion and solvent casting is stretched to orient the molecular chain of the copolymer, **thereby revealing negative birefringence.**"

Le Khac et al disclose a polymer composition containing of a copolymer having recurrent units of a C_2 to C_4 α-olefin and recurrent units of an N-aryl substituted maleimide and an acrylonitrile copolymer (Le Khac et al, abstract) and a test piece comprising the composition (Example 5 at col. 5, line 21). However, such a test piece is merely molded as a test piece and not an optical film as claimed. There is no disclosure of a method which results in an optical film having a negative birefringence. Thus, the test piece of Le-Khac is not an optical film exhibiting a negative birefringence.

Further, the claimed combination of components a) and b) results in films that do not exhibit fine cracks and can therefore be used as retardation films. See Examples 1-5 at pages 20 -25 of the specification.

In contrast, Comparative Examples 1-3 use **only component a)** (N-phenylmaleimide-isobutene copolymer and N-(2-methylphenyl)maleimide-isobutene copolymer, respectively in Comparative Examples 1 and 2) **or only component b)** (acrylonitrile-styrene copolymer in Comparative Example 3). **The resulting film have cracks and are brittle or have inferior heat resistance.** See pages 25-28 of the specification. These superior properties are not disclosed or suggested by LeKhac.

Therefore, the rejection of Claims 3 and 4 under 35 U.S.C. § 102(b) as anticipated by LeKhac is believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

The rejection of Claims 3-6 and 10 under 35 U.S.C. § 103(a) over JP 05-117334 and Arakawa et al is traversed.

JP 05-117334 and Arakawa et al fail to disclose or suggest an optical film exhibiting negative birefringence as claimed comprising components a) and b). In addition, JP 05-117334 and Arakawa et al fail to disclose or suggest the superior properties obtained with the claimed film.

JP-117334 discloses an **olefin/ N-phenyl substituted maleimide/ N-alkyl substituted maleimide copolymer** and an optical material comprising the copolymer. The optical material exhibits **low** birefringence (JP-117334, abstract). However, **low** birefringence is **not negative** birefringence. Further, JP-117334 describes that negative birefringence is controlled by the stereo structure of the benzene ring in the maleimide unit. This description refers only to the **N-phenyl substituted maleimide unit itself** or to N-phenyl substituted maleimide **homopolymer**. However, there is no disclosure or suggestion that a copolymer has negative birefringence.

Further, regarding **new Claim 15**, the optical material of the present invention comprises a **copolymer (a)** consisting essentially of a N-substituted phenyl maleimide compound and an olefin. This is not a **terpolymer** having a N-alkyl substituted maleimide unit as set forth in JP-117334.

Further, there is no disclosure of a method which results in a material having a negative birefringence. Thus, the material of JP-117334 does not exhibit a negative birefringence.

JP 05-117334 and Arakawa et al fail to disclose or suggest an optical film exhibiting negative birefringence as claimed comprising components a) and b). JP 05-117334 discloses an olefin/ N-phenyl substituted maleimide/ N-alkyl substituted maleimide copolymer and fails to disclose the combination with component b). Arakawa et al disclose only the use of styrene/acrylonitrile copolymer and fail to disclose the use of component a).

However, the claimed combination of components a) and b) results in films that do not exhibit fine cracks and can therefore be used as retardation films. See Examples 1-5 at pages 20 -25 of the specification.

In contrast, Comparative Examples 1-3 use **only component a)** (N-phenylmaleimide-isobutene copolymer and N-(2-methylphenyl)maleimide-isobutene copolymer, respectively in Comparative Examples 1 and 2) **or only component b)** (acrylonitrile-styrene copolymer in Comparative Example 3). **The resulting film have cracks and are brittle or have inferior heat resistance.** See pages 25-28 of the specification. These superior properties are not disclosed or suggested by JP 05-117334 and Arakawa et al, alone or in **combination**. Thus, even a **combination** of JP 05-117334 and Arakawa et al does **not** render the present invention obvious.

Therefore, rejection of Claims 3-6 and 10 under 35 U.S.C. § 103(a) over JP 05-117334 and Arakawa et al are believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

Applicants respectfully request that the Examiner acknowledge that all references cited in the **Information Disclosure Statement, filed in the above-identified application on May 18, 2004,** have been considered. **Notably, the Examiner has not initialed references AW and AX.**

Applicants submit that the present application is in condition for allowance. Early notice to this effect is earnestly solicited.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon

Kirsten A. Grüneberg, Ph.D.
Registration No. 47,297

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)